

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Kethinni G. Chittibabu et al. Art Unit : Unknown
Serial No. : Not yet assigned Examiner : Unknown
Filed : April 21, 2004
Title : PHOTOVOLTAIC CELL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449.

This application relies on the earlier filing date of U.S. application serial number 10/165,877, filed on June 10, 2002, which claims priority to U.S. provisional application serial number 60/298,858, filed on June 15, 2001. The references listed on the following 1449 forms were submitted to and/or cited by the Office in the prior non-provisional application and, therefore, are not provided in this application.

This statement is being filed with the application. Accordingly, only copies of foreign patent documents and non-patent literature are enclosed. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: APRIL 21, 2004

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Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 08688-048002	Application No.
	Applicant Kethinni G. Chittibabu et al.		
	Filing Date April 21, 2004	Group Art Unit	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	4,232,108	11/04/80	Dessauer			
	AB	4,295,329	10/20/81	Windley			
	AC	4,927,721	05/22/90	Gratzel et al.			
	AD	5,728,487	03/17/98	Gratzel et al.			
	AE	5,830,597	11/3/1997	Hoffmann et al.			
	AF	6,075,203	06/13/00	Wang et al.			
	AG	6,291,763 B1	9/18/2001	Nakamura			
	AH	6,444,189	09/03/02	Wang et al.			
	AI	2002/0042343	04/11/02	Akui et al.			
	AJ	2003/0140959	7/2003	Gaudiana et al.			
	AK	2003/0188777	10/2003	Gaudiana et al.			
	AL	2003/0189402	10/2003	Gaudiana et al.			
	AM	2003/0192584	10/2003	Beckenbaugh et al.			
	AN	2003/0192585	10/2003	Beckenbaugh et al.			
	AO	2003/0230337	12/2003	Gaudiana et al.			
	AP	2003/0025933	2/2004	Chittibabu et al.			
	AQ	2004/0025934	2/2004	Chittibabu et al.			
	AR	2004/0031520	2/2004	Ryan			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AS	JP 7-116503	5/9/1995	Japan				
	AT	EP 993050	4/12/2000	EPO				

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AU	Cao et al, "A Solid State, Dye Sensitized Photoelectrochemical Cell," J. Phys. Chem., vol. 99, pages 17071-17073, (1995).

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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Other Documents (include Author, Title, Date, and Place of Publication)

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	AV	Bach et al., "Solid-state dye-sensitized mesoporous TiO ₂ solar cells with high photon-to-electron conversion efficiencies", <i>Nature</i> , Volume 395, pp. 583-585, October 1998.
	AW	Carotta et al., "Preparation and Characterization of Nanostructured Titania Thick Films", <i>Advanced Materials</i> , Volume 11, No. 11, pp. 943-946, 1999.
	AX	Gomez et al., "Nanocrystalline Ti-oxide-based solar cells made by sputter deposition and dye sensitization: Efficiency versus film thickness", <i>Solar Energy Materials & Solar Cells</i> , Volume 62, pp. 259-263, 2000.
	AY	Green, M.A., "Photovoltaics: technology overview", <i>Energy Policy</i> , Volume 28, pp. 989-998, 2000.
	AZ	Gregg, Brian A., "Bilayer molecular solar cells on spin-coated TiO ₂ substrates", <i>Chemical Physics Letters</i> , Volume 258, pp. 376-380, 1996.
	AAA	Hagfeldt et al., "Molecular Photovoltaics", <i>Accounts of Chemical Research</i> , Volume 33, pp. 269-277, 2000.
	ABB	Li et al., "Titanium dioxide films for photovoltaic cells derived from a sol-gel process", <i>Solar Energy Materials and Solar Cells</i> , Volume 56, pp. 167-174, 1999.
	ACC	Mikoshiba et al., "Highly efficient photoelectrochemical cell with novel polymer gel electrolytes", Conference Organizers, 3 pages.
	ADD	Nasr et al., "Role of Iodide in Photoelectrochemical Solar Cells. Electron Transfer between Iodide Ions and Ruthenium Polypyridyl Complex Anchored on Nanocrystalline SiO ₂ and SnO ₂ Films", <i>J. Phys. Chem. B</i> , Volume 102, pp. 4944-4951, 1998.
	AEE	O'Regan et al., "A low-cost, high-efficiency solar cell based on dye-sensitized colloidal TiO ₂ films", <i>Nature</i> , Volume 353, pp. 737-740, October 1991.
	AFF	Park et al., "Comparison of Dye-Sensitized Rutile- and Anatase-Based TiO ₂ Solar Cells", <i>J. Phys. Chem. B</i> , Volume 104, pp. 8989-8994, 2000.
	AGG	Petritsch et al., "Dye-based donor/acceptor solar cells", <i>Solar Energy Materials & Solar Cells</i> , Volume 61, pp. 63-72, 2000.
	AHH	Phani et al., "Titania solar cells: new photovoltaic technology", <i>Renewable Energy</i> , Volume 22, pp. 303-309, 2001.
	AII	Pichot et al., "Low-Temperature Sintering of TiO ₂ Colloids: Application to Flexible Dye-Sensitized Solar Cells", <i>Langmuir</i> , Volume 16, pp. 5626-5630, 2000.
	AJJ	Pichot et al., "The Photovoltage-Determining Mechanism in Dye-Sensitized Solar Cells", <i>J. Phys. Chem. B</i> , Volume 104, pp. 6-10, 2000.
	AKK	Ruile et al., "Novel sensitizers for photovoltaic cells. Structural variations of Ru (II) complexes containing 2,6-bis (1-methylbenzimidazol-2-yl) pyridine", <i>Inorganica Chimica Acta</i> , Volume 261, pp. 129-140, 1997.
	ALL	Schwarzburg et al., "Origin of Photovoltage and Photocurrent in the Nanoporous Dye-Sensitized Electrochemical Solar Cell", <i>J. Phys. Chem. B</i> , Volume 103, Number 28, pp. 5743-5746, 1999.
	AMM	Smestad, Greg P., "Education and solar conversion: Demonstrating electron transfer", <i>Solar Energy Materials and Solar Cells</i> , Volume 55, pp. 157-178, 1998.
	ANN	Sommeling et al., "Flexible Dye-Sensitized Nanocrystalline TiO ₂ Solar Cells", Conference Organizers, 5 pages.
	AOO	Trupke et al., "Dependence of the Photocurrent Conversion Efficiency of Dye-Sensitized Solar Cells on the Incident Light Intensity", <i>J. Phys. Chem. B</i> , Volume 104, pp. 11484-11488, 2000.

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